

AMENDED IN ASSEMBLY JUNE 10, 2010

AMENDED IN SENATE APRIL 20, 2010

AMENDED IN SENATE APRIL 5, 2010

SENATE BILL

No. 1476

Introduced by Senator Padilla

February 19, 2010

An act to add Sections 387.7 and 714 to Chapter 5 (commencing with Section 8380) to Division 4.1 of, and to repeal Section 393 of, the Public Utilities Code, relating to public utilities.

LEGISLATIVE COUNSEL'S DIGEST

SB 1476, as amended, Padilla. Public utilities: customer privacy: advanced metering infrastructure.

(1) Under existing law, the Public Utilities Commission has regulatory authority over public utilities, including electrical corporations and gas corporations, as defined. ~~The existing Public Utilities Act requires every public utility to furnish and maintain adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public.~~

Existing law requires the commission to conduct a pilot study of certain customers of each electrical corporation to determine the relative value to ratepayers of information, rate design, and metering innovations using specified approaches, but prohibits this data from being used for any commercial purpose, unless authorized by the customer.

This bill would repeal the provisions relating to the study, and *pilot study*.

The bill would require an electrical corporation; or gas corporation; or local publicly owned electric utility that utilizes an advanced metering infrastructure that allows a customer to access the customer's electrical or gas consumption data, as defined, to ensure that the customer has an option to access that data without being required to agree to the sharing of his or her personally identifiable information, including electrical or gas consumption data, with a 3rd party. The bill would prohibit a local publicly owned electric utility; an electrical corporation; or gas corporation from sharing, selling, disclosing, or otherwise making accessible to any 3rd party a customer's electrical or gas consumption data, except as specified, and would require those utilities to use reasonable security procedures and practices to protect a customer's electrical and gas consumption data from unauthorized access, destruction, use, modification, or disclosure. The bill would prohibit an electrical corporation or gas corporation from selling a customer's electrical or gas consumption data or any other personally identifiable information for any purpose. The bill would adopt near identical requirements applicable to a local publicly owned electric utility with respect to electrical consumption data, as defined.

~~(2) Under existing law, a violation of any provision of the Public Utilities Act, or of any of the rules or orders issued under the act, is a crime.~~

~~Because the provisions of this bill are within the act, a violation of these provisions would impose a state-mandated local program by creating a new crime.~~

~~(3) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.~~

~~This bill would provide that no reimbursement is required by this act for a specified reason.~~

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: ~~yes~~-no.

The people of the State of California do enact as follows:

1 SECTION 1. Section 393 of the Public Utilities Code is
2 repealed.

3 393. (a) The commission shall conduct a pilot study of the
4 residential and small commercial customers of each electrical
5 corporation, where the rate level established in subdivision (a) of

1 Section 368 is no longer in effect, to determine the relative value
2 to ratepayers of various information, rate design, and metering
3 innovations for helping residential and small commercial customers
4 better manage their electricity use. The commission shall compare
5 the net benefits, including, but not limited to, all of the following
6 approaches:

7 (1) ~~The retrofit or replacement of residential and small~~
8 ~~commercial meters to provide real-time usage information to a~~
9 ~~standard output interface that is connected to a visual display~~
10 ~~module within the customer's home or business that presents~~
11 ~~information, at minimum, on current usage and historic usage. The~~
12 ~~commission may also test the effects of providing greater amounts~~
13 ~~of information display capability including, but not limited to,~~
14 ~~historic usage and estimated aggregated costs for the billing period,~~
15 ~~associated with the customer's bundled rate structure. The standard~~
16 ~~output interface of the meter must be multiply accessible to allow~~
17 ~~the installation by the customer, an electrical corporation, or a~~
18 ~~registered energy service provider of energy information-based~~
19 ~~energy management applications.~~

20 (2) ~~The replacement of residential and small commercial meters~~
21 ~~with time-of-use meters that distinguish and measure peak and~~
22 ~~off-peak energy use. Subject to the approval of the commission,~~
23 ~~electrical corporations shall offer a rate schedule to customers that~~
24 ~~differentially price seasonal on-peak, mid-peak, and off-peak~~
25 ~~energy use that reflects the electrical corporation's actual energy~~
26 ~~cost. The meters used shall have the same standard usage~~
27 ~~information output interface as in paragraph (1).~~

28 (3) ~~The replacement of residential and small commercial meters~~
29 ~~with meters that facilitate the offering of hourly real-time pricing.~~
30 ~~Subject to the approval of the commission, electrical corporations~~
31 ~~shall offer a rate schedule to customers that prices electricity usage~~
32 ~~at the electrical corporation's hourly cost. The meters used shall~~
33 ~~have the same standard usage information output interface as in~~
34 ~~paragraph (1).~~

35 (b) ~~The commission shall ensure that sufficient valid randomized~~
36 ~~customer use data, normalized for weather, occupancy, energy~~
37 ~~cost differences and other potentially confounding factors, are~~
38 ~~collected to respond to, but are not limited to, all of the following~~
39 ~~questions:~~

1 (1) To what extent is the real-time availability of customer usage
2 information to customers sufficient to bring about a significant
3 change in customer energy consumption behavior?

4 (2) To what extent is the availability of customer usage
5 information to customers sufficient to stimulate innovation in
6 energy information-based energy management applications?

7 (3) What is the difference in energy consumption behavior
8 between customers that have enhanced access to energy
9 consumption information and those who have time-of-use rates?

10 (4) Do the differences in usage and net cost savings, if any,
11 between customers who have enhanced energy information and
12 those who have time-of-use rates justify the broader offering of
13 time-of-use metering capability?

14 (5) What is the difference in energy consumption behavior
15 between customers who consume electricity under hourly real-time
16 pricing and customers who either have enhanced information access
17 or time-of-use pricing? Does the value of these differences justify
18 the broader offering of hourly real-time pricing?

19 (6) What issues should be addressed prior to systemwide
20 deployment?

21 (c) In conducting the pilot study, the commission shall ensure
22 that all of the following study conditions are observed:

23 (1) No more than the minimum number of customers required
24 to provide a statistically valid sample for a customer group in a
25 pilot study as required by subdivision (a) are included. The
26 aggregate total number of customers participating in a customer
27 group in a pilot study may not exceed 3 percent of the electrical
28 corporation's customers.

29 (2) Customers from each electrical corporation are selected from
30 comparable geographic areas, from a variety of climate zones, and
31 from a range of socioeconomic circumstances. In addition, control
32 groups of customers shall be established for each study against
33 whom the behavior of the study group participants may be
34 compared.

35 (3) No customer is required to participate in a pilot study.
36 However, customer rates of participation and reasons for
37 nonparticipation for each study condition shall be monitored and
38 incorporated in the study results, as appropriate.

39 (4) The offerings for the customers in the service territories of
40 each electrical corporation that participates in a pilot study required

1 by subdivision (a) are identical among electrical corporations to
2 allow the comparison of data and results. However, electrical
3 corporations may test alternative technological solutions, not
4 including those relating to the standard usage information output
5 interface specified in subdivision (e), to offer hourly real-time
6 pricing for the pilot study in paragraph (3) of subdivision (a).

7 (5) Notwithstanding paragraph (4), the commission may waive
8 the requirement imposed by that paragraph, or otherwise alter a
9 pilot study, if the commission finds that it is in the public interest.

10 (6) All interested energy service providers and equipment
11 manufacturers are included in the design and implementation of
12 the pilot study to ensure that its results may be used to guide the
13 subsequent deployment of the appropriate customer usage
14 information infrastructure.

15 (d) The commission shall report to the Legislature on the initial
16 results of the pilot study on or before March 31, 2002. The
17 commission shall report on the results of the study for electrical
18 corporations that continue to be under the rate level established in
19 subdivision (a) of Section 368 at the effective date of this act within
20 15 months from the time when that rate level is no longer in effect.

21 (e) The study data shall be available to the public. The data shall
22 be provided in a way that does not reveal customer-specific
23 information.

24 (f) The standard usage information output interface used in pilot
25 study elements set forth in paragraphs (1) to (3), inclusive, of
26 subdivision (a) shall meet all of the following specifications:

27 (1) All electrical corporation retrofits or meter replacements
28 shall conform to the same American National Standards Institute,
29 Institute of Electrical and Electronics Engineers or other standard,
30 as appropriate, and provide the same standard output interface.

31 (2) The technology selected shall be the most cost-effective,
32 including its use of electricity on a life-cycle basis.

33 (3) The standard output interface selected shall allow a
34 customer's data to be multiply accessed in a secure and protected
35 manner.

36 (4) The standard output interface shall be installed in a way that
37 does not compromise customer or worker safety or the integrity
38 or accuracy of the meter.

~~(5) Because some older vintage meters cannot be readily retrofitted, the decision regarding whether to retrofit or replace a meter must be made on the basis of cost-effectiveness.~~

~~(6) Access by electrical corporations and third-party providers to the usage information output interface shall be at the sole discretion of the customer, except to the extent that the customer enters into a billing relationship with an electrical corporation or energy service provider.~~

~~(7) To ensure customer privacy, unless specifically authorized by the customer, information based upon customer data may not be used for any commercial purpose.~~

~~(8) Customers receiving service under the California Alternative Rates for Energy program under Section 739.1 do not pay a higher distribution rate attributable to participating in any of the pilot studies in subdivision (a).~~

~~(g) The commission shall allow electrical corporations to include in their distribution rates the reasonable investment and operating, installing, accounting, and evaluating costs of the pilot studies, those costs to be allocated only among the customer classes participating in the study.~~

SEC. 2. Chapter 5 (commencing with Section 8380) is added to Division 4.1 of the Public Utilities Code, to read:

*CHAPTER 5. PRIVACY PROTECTIONS FOR ENERGY CONSUMPTION
DATA*

8380. (a) (1) For purposes of this section, “electrical or gas consumption data” means data about a customer’s electrical or natural gas usage that is made available as part of an advanced metering infrastructure.

(2) For purposes of this section, an authorization, acknowledgment, or consent is “written” or “in writing” if made by an “electronic record” that includes a “digital signature” as those terms are defined in Section 1633 of the Civil Code.

(b) An electrical or gas corporation that utilizes an advanced metering infrastructure that allows a customer to access the customer’s electrical and gas consumption data shall ensure that the customer has an option to access that data without being required to agree to the sharing of his or her personally identifiable information, including electrical or gas consumption data, with a

1 *third party. The electrical corporation or gas corporation shall*
2 *not contract with any third party that facilitates access to electrical*
3 *or gas consumption data that provides an incentive or discount to*
4 *the customer for accessing his or her electrical or gas consumption*
5 *data, except as provided in paragraph (3) of subdivision (b).*

6 *(c) (1) An electrical corporation or gas corporation shall not*
7 *share, disclose, or otherwise make accessible to any third party a*
8 *customer's electrical or gas consumption data, except as provided*
9 *in paragraph (3).*

10 *(2) An electrical corporation or gas corporation shall not sell*
11 *a customer's electrical or gas consumption data or any other*
12 *personally identifiable information for any purpose.*

13 *(3) An electrical corporation or gas corporation may make a*
14 *customer's electrical or gas consumption data accessible to a third*
15 *party if the customer was given the option, pursuant to subdivision*
16 *(b), to access electrical or gas consumption data without being*
17 *required to share personally identifiable information with a third*
18 *party and the customer has given his or her express written consent*
19 *for a demand response or energy efficiency program, provided by*
20 *a third party, that manages the customer's consumption of energy*
21 *in response to supply or pricing conditions.*

22 *(d) An electrical corporation or gas corporation shall use*
23 *reasonable security procedures and practices to protect a*
24 *customer's electrical or gas consumption data from unauthorized*
25 *access, destruction, use, modification, or disclosure.*

26 *(e) (1) Nothing in this section shall preclude an electrical*
27 *corporation or gas corporation from using customer aggregate*
28 *electrical or gas consumption data for analysis, reporting, or*
29 *program management if all information has been removed*
30 *regarding the individual identity of a customer.*

31 *(2) Nothing in this section shall preclude an electrical*
32 *corporation or gas corporation from disclosing a customer's*
33 *electrical or gas consumption data to a third party for system,*
34 *grid, or other operational needs provided that the utility has*
35 *required by contract that the third party implement and maintain*
36 *reasonable security procedures and practices appropriate to the*
37 *nature of the information, to protect the personal information from*
38 *unauthorized access, destruction, use, modification, or disclosure.*

39 *(3) Nothing in this section shall preclude an electrical*
40 *corporation or gas corporation from disclosing electrical or gas*

1 consumption data as required under state or federal law or by an
2 order of the commission.

3 (f) If a customer chooses to disclose his or her electrical or gas
4 consumption data to a third party that is unaffiliated with, and has
5 no other business relationship with, the electrical or gas
6 corporation, the electrical or gas corporation shall not be
7 responsible for the security of that data.

8 8381. (a) (1) For purposes of this section, “electrical
9 consumption data” means data about a customer’s electrical usage
10 that is made available as part of an advanced metering
11 infrastructure.

12 (2) For purposes of this section, an authorization,
13 acknowledgment, or consent is “written” or “in writing” if made
14 by an “electronic record” that includes a “digital signature” as
15 those terms are defined in Section 1633 of the Civil Code.

16 (b) A local publicly owned electric utility that utilizes an
17 advanced metering infrastructure that allows a customer to access
18 the customer’s electrical consumption data shall ensure that the
19 customer has an option to access that data without being required
20 to agree to the sharing of his or her personally identifiable
21 information, including electrical consumption data, with a third
22 party. The local publicly owned electric utility shall not contract
23 with any third party that facilitates access to electrical consumption
24 data that provides an incentive or discount to the customer for
25 accessing his or her electrical consumption data, except as
26 provided in paragraph (3) of subdivision (b).

27 (c) (1) A local publicly owned electric utility shall not share,
28 disclose, or otherwise make accessible to any third party a
29 customer’s electrical consumption data, except as provided in
30 paragraph (3).

31 (2) A local publicly owned electric utility shall not sell a
32 customer’s electrical consumption data or any other personally
33 identifiable information for any purpose.

34 (3) A local publicly owned electric utility may make a customer’s
35 electrical consumption data accessible to a third party if the
36 customer was given the option, pursuant to subdivision (b), to
37 access electrical consumption data without being required to share
38 personally identifiable information with a third party and the
39 customer has given his or her express written consent for a demand
40 response or energy efficiency program, provided by a third party,

1 *that manages the customer's consumption of electricity in response*
2 *to electrical supply or pricing conditions.*

3 *(d) A local publicly owned electric utility shall use reasonable*
4 *security procedures and practices to protect a customer's electrical*
5 *consumption data from unauthorized access, destruction, use,*
6 *modification, or disclosure.*

7 *(e) (1) Nothing in this section shall preclude a local publicly*
8 *owned electric utility from using customer aggregate electrical*
9 *consumption data for analysis, reporting, or program management*
10 *if all information has been removed regarding the individual*
11 *identity of a customer.*

12 *(2) Nothing in this section shall preclude a local publicly owned*
13 *electric utility from disclosing a customer's electrical consumption*
14 *data to a third party for system, grid, or other operational needs*
15 *provided that the utility has required by contract that the third*
16 *party implement and maintain reasonable security procedures and*
17 *practices appropriate to the nature of the information, to protect*
18 *the personal information from unauthorized access, destruction,*
19 *use, modification, or disclosure.*

20 *(3) Nothing in this section shall preclude a local publicly owned*
21 *electric utility from disclosing electrical consumption data as*
22 *required under state or federal law.*

23 *(f) If a customer chooses to disclose his or her electrical*
24 *consumption data to a third party that is unaffiliated with, and has*
25 *no other business relationship with, the local publicly owned*
26 *electric utility, the utility shall not be responsible for the security*
27 *of that data.*

28 ~~SECTION 1. Section 387.7 is added to the Public Utilities~~
29 ~~Code, to read:~~

30 ~~387.7. (a) For purposes of this section, "electrical consumption~~
31 ~~data" means data about a customer's electrical usage that is made~~
32 ~~available as part of an advanced metering infrastructure.~~

33 ~~(b) A local publicly owned electric utility that utilizes an~~
34 ~~advanced metering infrastructure that allows a customer to access~~
35 ~~the customer's electrical consumption data shall ensure that the~~
36 ~~customer has an option to access that data without being required~~
37 ~~to agree to the sharing of his or her personally identifiable~~
38 ~~information, including electrical consumption data, with a third~~
39 ~~party. The local publicly owned electric utility shall not partner~~
40 ~~with any third party that facilitates access to electrical consumption~~

1 data that provides an incentive or discount to the customer for
2 accessing their electrical consumption data.

3 (e) (1) A local publicly owned electric utility shall not share,
4 sell, disclose, or otherwise make accessible to any third party a
5 customer's electrical consumption data, except as provided in
6 paragraph (2).

7 (2) A local publicly owned electric utility may make a
8 customer's electrical consumption data accessible to a third party
9 in either of the following circumstances:

10 (A) The customer was given the option, pursuant to subdivision
11 (b), to access electrical consumption data without being required
12 to share personally identifiable information with a third party, the
13 customer has declined that option, and the customer has instead
14 chosen, without revoking that choice, to access his or her electrical
15 consumption data from that third party.

16 (B) The electrical consumption data is accessed or shared by a
17 third party or local publicly owned electric utility with the
18 customer's prior express written consent for a demand response
19 program that manages the customer's consumption of electricity
20 in response to electrical supply or pricing conditions.

21 (d) A local publicly owned electric utility shall use reasonable
22 security procedures and practices to protect a customer's electrical
23 consumption data from unauthorized access, destruction, use,
24 modification, or disclosure.

25 (e) (1) Nothing in this section shall preclude a local publicly
26 owned electric utility from using customer aggregate electrical
27 consumption data for analysis, reporting, or program management
28 if all information has been removed regarding the individual
29 identity of a customer.

30 (2) Nothing in this section shall preclude a local publicly owned
31 electric utility from disclosing a customer's electrical consumption
32 data to a third party for billing purposes.

33 SEC. 2. Section 393 of the Public Utilities Code is repealed.

34 SEC. 3. Section 714 is added to the Public Utilities Code, to
35 read:

36 714. (a) For purposes of this section, "electrical or gas
37 consumption data" means data about a customer's electrical or
38 natural gas usage that is made available as part of an advanced
39 metering infrastructure.

1 ~~(b) An electrical or gas corporation that utilizes an advanced~~
2 ~~metering infrastructure that allows a customer to access the~~
3 ~~customer's electrical and gas consumption data shall ensure that~~
4 ~~the customer has an option to access that data without being~~
5 ~~required to agree to the sharing of his or her personally identifiable~~
6 ~~information, including electrical or gas consumption data, with a~~
7 ~~third party. The electrical corporation or gas corporation shall not~~
8 ~~partner with any third party that facilitates access to electrical or~~
9 ~~gas consumption data that provides an incentive or discount to the~~
10 ~~customer for accessing their electrical or gas consumption data.~~

11 ~~(c) (1) An electrical corporation or gas corporation shall not~~
12 ~~share, sell, disclose, or otherwise make accessible to any third~~
13 ~~party a customer's electrical or gas consumption data, except as~~
14 ~~provided in paragraph (2).~~

15 ~~(2) An electrical corporation or gas corporation may make a~~
16 ~~customer's electrical or gas consumption data accessible to a third~~
17 ~~party in either of the following circumstances:~~

18 ~~(A) The customer was given the option, pursuant to subdivision~~
19 ~~(b), to access electrical or gas consumption data without being~~
20 ~~required to share personally identifiable information with a third~~
21 ~~party, the customer has declined that option, and the customer has~~
22 ~~instead chosen, without revoking that choice, to access his or her~~
23 ~~electrical or gas consumption data from that third party.~~

24 ~~(B) The electrical or gas consumption data is accessed or shared~~
25 ~~by a third party, electrical corporation, or gas corporation with the~~
26 ~~customer's prior express written consent for a demand response~~
27 ~~program that manages the customer's consumption of energy in~~
28 ~~response to supply or pricing conditions.~~

29 ~~(d) An electrical corporation or gas corporation shall use~~
30 ~~reasonable security procedures and practices to protect a customer's~~
31 ~~electrical or gas consumption data from unauthorized access,~~
32 ~~destruction, use, modification, or disclosure.~~

33 ~~(e) (1) Nothing in this section shall preclude an electrical~~
34 ~~corporation or gas corporation from using customer aggregate~~
35 ~~electrical or gas consumption data for analysis, reporting, or~~
36 ~~program management if all information has been removed~~
37 ~~regarding the individual identity of a customer.~~

38 ~~(2) Nothing in this section shall preclude an electrical~~
39 ~~corporation or gas corporation from disclosing a customer's~~

1 ~~electrical or gas consumption data to a third party for billing~~
2 ~~purposes.~~
3 ~~SEC. 4. No reimbursement is required by this act pursuant to~~
4 ~~Section 6 of Article XIII B of the California Constitution because~~
5 ~~the only costs that may be incurred by a local agency or school~~
6 ~~district will be incurred because this act creates a new crime or~~
7 ~~infraction, eliminates a crime or infraction, or changes the penalty~~
8 ~~for a crime or infraction, within the meaning of Section 17556 of~~
9 ~~the Government Code, or changes the definition of a crime within~~
10 ~~the meaning of Section 6 of Article XIII B of the California~~
11 ~~Constitution.~~